TECTONOPHYSICS—Volume 151—No. 1–4

Special Issue

THE OPHIOLITES OF OMAN

Edited by

F. BOUDIER and A. NICOLAS

Laboratoire de Tectonophysique, Université des Sciences et Techniques du Languedoc, place Eugène Bataillon, 34060 Montpellier Cedex (France)

CONTENTS

Preface VII

Mantle flow patterns at an oceanic spreading centre: The Oman peridotites record
Ceuleneer, G., Nicolas, A. and Boudier, F. (Montpellier, France) 1
Structural mapping in the Oman ophiolites: Mantle diapirism along an oceanic ridge
Nicolas, A., Ceuleneer, G., Boudier, F. and Misseri, M. (Montpellier, France) 27
Fe–Ni–Cu sulfides in tectonite peridotites from the Maqsad district, Sumail ophiolite, southern Oman: Implications for the origin of the sulfide component in the oceanic upper mantle
Lorand, J.P. (Paris, France) 57
Mantle–crust transition zone and origin of wehrlitic magmas: Evidence from the Oman ophiolite
Benn, K. and Nicolas, A. (Montpellier, France) and Reuber, I. (Poitiers, France) 75
A new magma chamber model based on structural studies in the Oman ophiolite
Nicolas, A. (Montpellier, France), Reuber, I. (Poitiers, France) and Benn, K. (Montpellier, France) 87
Duality of magmatism in the plutonic sequence of the Sumail Nappe, Oman
Juteau, T. (Brest, France), Ernewein, M. (Strasbourg, France), Reuber, I. (Poitiers, France), Whitechurch, H. (Strasbourg, France) and Dahl, R. (Ottawa, Ont., Canada) 107
Complexity of the crustal sequence in the northern Oman ophiolite (Fizh and southern Aswad blocks): The effect of early slicing?
Reuber, I. (Poitiers, France) 137
Segmentation at a fossil spreading axis: The plutonic sequence of the Wadi Haymiliyah area (Haylayn Block, Sumail Nappe, Oman)
Juteau, T. (Brest, France), Beurrier, M. (Orléans, France), Dahl, R. (Ottawa, Ont., Canada) and Nehlig, P. (Brest, France) 167
Flow porosities, permeabilities and preliminary data on fluid inclusions and fossil thermal gradients in the crustal sequence of the Sumail ophiolite (Oman)
Nehlig, P. and Juteau, T. (Brest, France) 199
Metalliferous sediments within lava sequences of the Sumail ophiolite (Oman): Mineralogical and geochemical characterization, origin and evolution
Karpoff, A.M. and Walter, A.-V. (Strasbourg, France) and Pflumio, C. (Paris, France) 223
The death of an accretion zone as evidenced by the magmatic history of the Sumail ophiolite (Oman)
Ernewein, M. (Strasbourg, France), Pflumio, C. (Paris, France) and Whitechurch, H. (Strasbourg, France) 247
Shear zones, thrusts and related magmatism in the Oman ophiolite: Initiation of thrusting on an oceanic ridge
Boudier, F., Ceuleneer, G. and Nicolas, A. (Montpellier, France) 275
Paleomagnetic results from Oman ophiolites related to their emplacement
Thomas, V. (Paris and Montpellier, France), Pozzi, J.P. (Paris, France) and Nicolas, A. (Montpellier, France) 297
The Hawasina Basin: A fragment of a starved passive continental margin, thrust over the Arabian Platform during obduction of the Sumail Nappe
Béchennec, F., Le Métour, J., Rabu, D., Villey, M. and Beurrier, M. (Orléans, France) 323
K–Ar and $^{40}Ar/^{39}Ar$ study of metamorphic rocks associated with the Oman ophiolite: Tectonic implications
Montigny, R., Le Mer, O., Thuizat, R. and Whitechurch, H. (Strasbourg, France) 345
A case of obduction-related high-pressure, low-temperature metamorphism in upper crustal nappes, Arabian continental margin, Oman: *P–T* paths and kinematic interpretation
Goffé, B. (Paris, France), Michard, A. (Strasbourg, France), Kienast, J.R. (Paris, France) and Le Mer, O. (Strasbourg, France) 363
Mapping in the Oman ophiolite using enhanced Landsat Thematic Mapper images
Abrams, M.J. (Pasadena, Calif., U.S.A.) and Rothery, D.A. and Pontual, A. (Milton Keynes, Great Britain) 387